

Remarks

Claims 1-9, 11-13 and 15-19, 21 and 22 are pending in the application and stand rejected. Claims 10, 14 and 20 have been canceled without prejudice to or disclaimer.

Claim rejections

Section 101

Claims 7 and 21 were rejected under 35 USC 101 as reciting an intended use without setting forth steps. The Applicant respectfully traverses. Claim 7 depends on claim 1 and therefore incorporates the multiple steps set forth therein. Similarly, independent claim 21 recites multiple steps: determining and calculating. Moreover, the recitation pointed to by the Examiner ("data determined at least in part from bill of materials (BOM) information") is not a statement of intended use, it is a further limitation on the step of "determining accelerated stress testing data." The format of claims 7 and 21 is long-standing and well-accepted; the patent database is replete with claims having the format of claims 7 and 21. Withdrawal of the rejection of claims 7 and 21 under 35 USC 101 is therefore respectfully requested.

Claims 8, 9, 11 and 12-19 were likewise rejected under 35 USC 101 as reciting intended use without setting forth steps. The Applicant respectfully traverses, along lines discussed above. Claims 8, 9, 11 and 12-19 depend on multi-step claim 1 and are therefore themselves multi-step claims. Moreover, the recitations of claims 8, 9, 11 and 12-19 are not statements of intended use, they are further limitations on the base claim. In the event the Examiner continues to disagree, the Examiner is respectfully requested to clarify how, for example, claim 8's "said step of calculating is performed during the design of the product" is a statement of intended use. How does claim 8 express "intent"? What is the thing being used? What is the intended use? Similar clarification is requested concerning claims 9, 11 and 12-19.

In any event, withdrawal of the rejection of claims 8, 9, 11 and 12-19 under 35 USC 101 is respectfully requested.

Section 112

Claims 1, 21 and 22 were rejected under 35 USC 112, 2nd paragraph as omitting definitions of the variables in the claimed equations. Withdrawal of this rejection is respectfully requested in view of the amendments to claims 1, 21 and 22 set forth above.

Claims 7 and 22 were rejected under 35 USC 112, second paragraph, as reciting an intended use without setting forth steps. Along lines discussed previously, the Applicant respectfully traverses. Claim 7 depends on claim 1 and therefore incorporates the multiple steps set forth therein. Similarly, independent claim 21 recites multiple steps: determining and calculating. The recitation "data determined at least in part from bill of materials (BOM) information" is not a statement of intended use, it is a further limitation on the step of "determining accelerated stress testing data." Withdrawal of the rejection of claims 7 and 21 under 35 USC 112 is therefore respectfully requested.

Claims 8, 9, 11 and 12-19 were likewise rejected under 35 USC 112, second paragraph, as reciting intended use without setting forth steps. The Applicant respectfully traverses, along lines discussed above. Claims 8, 9, 11 and 12-19 depend on multi-step claim 1 and are therefore themselves multi-step claims. Moreover, the recitations of claims 8, 9, 11 and 12-19 are not statements of intended use, they are further limitations on the base claim. Withdrawal of the rejection of claims 8, 9, 11 and 12-19 under 35 USC 112, second paragraph, is respectfully requested.

Section 103

Claims 1-6, 21 and 22 were rejected under 35 USC 103(a) as being unpatentable over: Siegel, B. "Reliability and the Electronic Engineer", Intersil Corporation Application Note AN1104, March 24, 1994 ("Siegel"); Weibull.com, "Arrhenius Relationship Introduction", printed from the 4/23/2001 archived version of the Weibull.com website stored at Archive.org ("Weibull"); and Reliasoft's ALTA 1.0 On-Site Training Guide, © 1999 ("Reliasoft"). The Applicant respectfully traverses, for at least the reason that the cited references do not suggest the relationship $t_F = A F \times \exp(t_A)$ as required by independent claims 1, 21 and 22. The Examiner acknowledges that Siegel

does not disclose the claimed relationship, and relies on Weibull for this subject matter. Reliasoft is only cited for "software implementation of the Arrhenius model."

As for Weibull, the Examiner cites page 1 of "[t]he Weibull Reference" as "teach[ing] that both the Arrhenius Reaction Rate Equation and the Arrhenius Stress-Life Relationship Equation are exponential" (Office Action, page 5, item 17). Although the undersigned is uncertain as to what the Examiner means by page 1 of "the Weibull Reference," for purposes of responsiveness it is assumed that the Examiner is referring to the materials at the web page http://web.archive.org/web/20010423072851/weibull.com/AccelTestWeb/arrhenius_relationship_introduction.htm.

However, while these materials do show equations containing exponentials, as noted previously the materials not disclose the relationship $t_F = AF \times \exp(t_A)$ as required by independent claims 1, 21 and 22. The Examiner states that "[i]t would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Siegel with those of Weibull, because the Arrhenius equation taught in Siegel is not completely clear as to whether it is exponential or not." However, it is not clear what the proposed modification to Siegel in view of Weibull is, or how the combination of Siegel with Weibull yields the claimed relationship. The Examiner points to equations (1) and (2) of Siegel. These, respectively, relate to an acceleration factor in terms of a failure rate, an activation energy in volts, and Boltzmann's constant, and a failure rate expressed as a ratio of number of failures to total device hours. The Arrhenius equations referred to by the Examiner relate to a rate of an (apparently chemical) reaction in terms of a "nonthermal constant," an activation energy in volts, and Boltzmann's constant. The latter are not pertinent to the relationship $t_F = AF \times \exp(t_A)$ as claimed. Moreover, the motivation stated by the Examiner for the combination of Siegel with Weibull, i.e., "because the Arrhenius equation taught in Siegel is not completely clear as to whether it is exponential or not," is not a motivation for the combination at all. Rather, since the Examiner acknowledges that Siegel is silent as to an exponential relationship, the Examiner's statement is a clear indication that the Examiner has engaged in impermissible hindsight reconstruction to find an

element absent from Siegel in a disparate reference, without any suggestion for doing so.

In view of the foregoing, withdrawal of the asserted rejection of claims 1-6, 21 and 22 under 35 USC 103(a) is therefore respectfully requested.

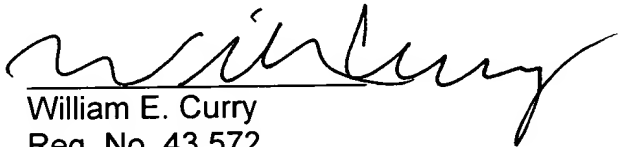
Conclusion

In light of the above discussion, Applicant respectfully submits that the present application is in all aspects in allowable condition, and earnestly solicits favorable reconsideration and early issuance of a Notice of Allowance.

The Examiner is invited to contact the undersigned at (202) 220-4323 to discuss any matter concerning this application. The Office is authorized to charge any fees related to this communication to Deposit Account No. 11-0600.

Respectfully submitted,

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